

PORKALAM 1948 : EXCAVATION OF A MEGALITHIC URN-BURIAL

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The south-western coastal strip of India is well-known for its large variety of megalithic burial-monuments, but their chronological and cultural relations with one another and with similar monuments elsewhere in south India can be established only by a series of excavations in typical examples. The present article describes the result of an excavation, conducted by the author in 1948, in one such example, viz. an urn-burial surrounded by a laterite circle and covered by a granite capstone. The family likeness of the ceramic types and fabric noticed here and at Brahmagiri and other megalithic sites no doubt indicates an alliedness of the different groups comprising the southern megalithic complex, though the different shapes of the monuments and the variations in the burial-customs represented therein seem to preclude an absolute homogeneity.

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I. INTRODUCTORY

PORKALAM, literally meaning a battle-field,¹ lies two and a half miles to the north of Kunnankulam in the Talapalli taluk of Trichur District, Travancore-Cochin State. The site, only 50 ft. above sea-level, lies on the low sloping laterite-formation which passes by imperceptible gradation into sandy clay or gravel. Until recently, the site had been extensively despoiled for building material ; it had long served as an easy quarry for the local roads. The Vedakad temple, the most sacred place of worship of the local priestly class, the Nambudris, is built on the site itself. This spoliation has robbed the monuments of many essential features and appendages with the result that no coherent plan of the site with all the type-monuments is feasible.

Consequent upon the discovery of the site, Shri P. Anujan Achan, the State Archaeologist to the Cochin Government, conducted some excavation which was more in the nature of a 'summary digging'² primarily intended to collect finds. Nevertheless,

¹This site marked the boundary of the territories of the Rājā of Cochin and the Zamorin of Calicut and as such featured prominently as a battle-field in their quarrels. (Information from Shri P. Anujan Achan.)

²An. Rep. Arch. Deptt., Cochin State for the year 1123 M.E. (A.D. 1947-48) (Ernakulam, 1949), Appendix C, p. 14.

the excavation revealed, though superficially, the potentialities of the site. In 1946, Shri V. D. Krishnaswami, at that time the Prehistorian of the Department of Archaeology, carried out an intensive survey of the megaliths of the Cochin State,¹ and his pioneer work had the merit of bringing order out of chaos. As an obvious sequel to this survey was an excavation, I was deputed, in the early part of the year 1948, to excavate some of these burials. However, I had to proceed shortly afterwards to Śiśupālgarh to take part in the excavation there and could not therefore open up more than one burial.

The work was undertaken in close collaboration with the State Department of Archaeology and with the assistance of Shri N. R. Banerji. For the preparation of photographs and drawings illustrating this article my thanks are due to Shri Munuswami Naicker, Photographer, and Shri Bhaskaran Nair, Draftsman of the Southern Circle, and to Shri L. Dutt and Shri Ram Prakash Khare of the Excavations Branch of the Department.

An account of this short excavation has already been published,² but the description is in many ways incorrect. The main objective of this paper is, therefore, to present the results of the excavation in a systematic and correct way.

2. SCOPE OF THE WORK

The Kerala region, the south-western coastal strip of India, is situated between the Western Ghats and the Arabian Sea. Being walled up from the mainland, it naturally developed certain individualities of culture which are also manifest in the funeral customs. The characteristic megalithic monuments of this area, viz. the *ṭopi-kals* or umbrella-stones, *kuḍai-kals* or hood-stones and rock-cut caves,³ do not occur elsewhere. Apart from these, multiple dolmens, port-hole cists, menhirs and urns are also met with in this area. Variants of the latter types are encountered in other parts of south India as well, notably in Coorg and Coimbatore, Salem, Madurā, Chingleput and Tinnevely Districts of Madras. A survey of three regions, viz. Chingleput District and the former States of Pudukkottai and Cochin, undertaken in the years 1944-48, revealed that the monuments in each zone, although belonging to a common megalithic complex, as attested to by their sepulchral nature and the use of iron and black-and-red pottery, differed considerably from each other in structural details and type.⁴ The exact nature of these monuments, however, remained to be established by careful digging. Choice fell first upon the monuments in Cochin State. Instead of taking a monument peculiar to the Kerala region, it was decided to start with a type which is common both to Kerala and Tāmīlnāḍ (pl. I), so that the evidence revealed at one place could be usefully employed for the other and correlation made possible. Porkalam provided the desired coincidence. Here, in addition to the rock-cut caves, also existed dolmens, port-hole cists with stone circles and urns. Since the rest of the available types were either disturbed or already excavated, a beginning was made with the urn-type.

¹ V. D. Krishnaswami, 'Prehistoric Cochin', paper read at the 34th Indian Science Congress, Anthropology and Archaeology Section, Delhi, 1947.

² *An. Rep. Arch. Deptt., Cochin State, op. cit.*, pp. 14-16.

³ L. A. Krishna Iyer, 'The prehistoric archaeology of Kerala', *Modern Review*, March 1946, pp. 182-90; V. D. Krishnaswami, 'Megalithic types of south India', *Ancient India*, no. 5 (1949), pp. 38-41.

⁴ Krishnaswami, 'Megalithic types', pp. 36-41.

The urn-burial is perhaps the simplest of the megalithic monuments.¹ The structural details are as follows. First, a circle was demarcated on the surface with dressed or unhewn blocks of stones, which, in many cases, are now missing. In the centre, a pit of a convenient size, slightly wider than the maximum diameter of the intended urn, was scooped out with a rough stepping on one side. The lower portion of the pit was made conical to hold firmly the urn, normally pyriform in shape. In this otherwise cylindrical pit, the funeral furnishings were placed in two fillings : (a) within the urn and (b) overlying the urn. The monument was finally sealed with a capstone.

3. CHRONOLOGY

The date of the megalithic tombs in India still remains, to a great extent, a problem. There is in fact no means of ascertaining their date unless each type of monument in different regions is excavated and correlated, if possible, with a corresponding town-site. In recent years considerable attention has been directed towards a thorough survey of the monuments, and though a comprehensive list is yet to be prepared, the amount of information we now possess about them is quite encouraging. As, however, much still remains to be collected, any dating of these monuments at this stage will necessarily be provisional.

Sepulchral urns have so far been recorded at Adichchanallūr,² Korkai and Kāyal³ in Tinnevely District, Pallāvaram and Perianattam in Chingleput District, Dadampatti and Paravai in Madurā District⁴ and Wynād⁵ and Travancore⁶ on the Malābār coast. At none of these places was any specific date ascribed to them.⁷ The Porkalam urn-burial resembles in essential details that at Dadampatti, where the dual distribution of the funeral furnishings is also noticed. Neither of these sites can, however, be dated independently by the recovered objects. Further, in the absence of a habitation-site in the vicinity of Porkalam, a correlation of this typical megalithic culture with any corresponding culture at such a site has not been possible. However, it is to be noted that the technique and fabric of the pottery recovered from this monument (below, pp. 8 ff.) are absolutely identical with the megalithic ware of Brahmagiri and other sites in south India. Although a majority of the pottery-types differs at each place, this identity of fabric, partially supported by the similarity of rudimentary forms, is not without meaning. Furthermore, the use of iron, a necessary adjunct of the southern megalithic culture, is attested to at all these sites. An inter-relationship in the south Indian megalithic complex is therefore obviously indicated. One phase of this culture has been dated at Brahmagiri to a period between circa 200 B.C. and the middle of the first century A.D.⁸

¹For a comparative study, see K. de B. Codrington, 'Indian cairn-and-urn-burials', *Man*, special India number, XXX, no. 10 (October, 1930), pp. 190-96.

²Alexander Rea, 'Prehistoric antiquities in Tinnevely', *An. Rep. Arch. Surv. Ind.*, 1902-03 (Calcutta, 1904), pp. 111 ff.

³R. Caldwell, 'Explorations at Korkai and Kāyal', *Indian Antiquary*, VI (Bombay, 1877), pp. 80-83.

⁴Alexander Rea, 'Some pre-historic burial places in southern India', *Jour. Asiatic Soc. Beng.*, LVII, pt. I (1888), pp. 48 ff.

⁵L. A. Cammiade, 'Urn burials in the Wynaad, southern India', *Man*, *op. cit.*, pp. 183-87 ; for more sites in Madras, see 'Observations upon ancient sites in the neighbourhood of Kalugumalai, Madras Presidency', *ibid.*, pp. 187-89.

⁶Caldwell, 'Sepulchral urns in southern India', *Indian Antiquary*, VI (Bombay, 1877), pp. 279-80.

⁷The Adichchanallūr urn-burials have been vaguely considered to be contemporary with the Pāṇdyans. Cf. Rea in *An. Rep. Arch. Surv. Ind.*, *op. cit.*

⁸R. E. M. Wheeler, 'Brahmagiri and Chandravalli 1947 : megalithic and other cultures in Mysore State', *Ancient India*, no. 4 (1947-48), pp. 200-02 ; also Appendix C, p. 300.

The only factor at Porkalam, which can serve as a cross-check to the above dates, is the occurrence of etched carnelian beads (fig. 5 ; pl. V B), some of the designs of which, notably nos. 1, 2 and 5, are closely paralleled elsewhere and are dated to about the first century A.D. (below, p. 14). This agrees with the terminal date of the Brahmagiri megalithic culture, arrived at with a fair amount of precision after the consideration of the evidence from town-sites like Arikamedu and Chandravalli. The lower limit of the Porkalam urn-burial monuments is rather difficult to determine. We have to borrow the indirect evidence of the megaliths at Sultur in Coimbatore District, where, amongst other things, etched carnelian beads (although with different designs) were found in association with a bronze coin of Eran struck in the third or second century B.C.¹ Two of the Porkalam beads, nos. 9 and 11, having rough analogues at Bhîr Mound, Taxila (below, p. 16), would also support this date. The Porkalam urn-burials seem, therefore, to belong to a period ranging from *circa* third century B.C. to first century A.D.²

4. DESCRIPTION OF THE MONUMENT (fig. 1 ; pls. II-IV)

The monument consisted of a circle of dressed laterite blocks with an average external diameter of 16 ft. In the centre was a granite capstone flush with the ground (pls. I B and II A). The granite must have been imported from the neighbouring outcrop, three-fourths of a mile away, which is the nearest quarry. The major axis of the monument was 291° magnetic (March, 1948).

The excavation revealed in the centre a cylindrical pit, on an average 3 ft. in diameter and 4½ ft. in depth (pl. II B). The pit seemed to have been further dug in a conical section into the hard laterite rock to a depth of 9 in. On the south-eastern side was noticed a rough step or shallow ramp, 9 to 10 in. in depth, presumably to assist in the arrangement of funerary furnishings.

At the bottom of this pit was placed a pyriform urn, with a truncated round base, 3 ft. 2 in. in height and 1 ft. 9 in. in diameter at the mouth and 2 ft. 9 in. at the bulge (fig. 4 ; pl. III). Inside the urn, at its base, lay the following objects (pl. IV A) :—

1. Seven pots (pls. IV A and V A). The pots seem to have been shaken from their intended position. The bones which were presumably deposited in the central pot with a lid on were found in a mess badly crushed below the pot and the ring-stand.

2. Three iron implements (fig. 6 ; pl. VI). One tanged dagger, 11½ in. long and on an average 1½ in. wide, was lying flat on the brims of two bowls (pl. IV A), the other two, 6 in. and 5 in. long respectively and of indeterminate use, were resting against the conical side of the urn.

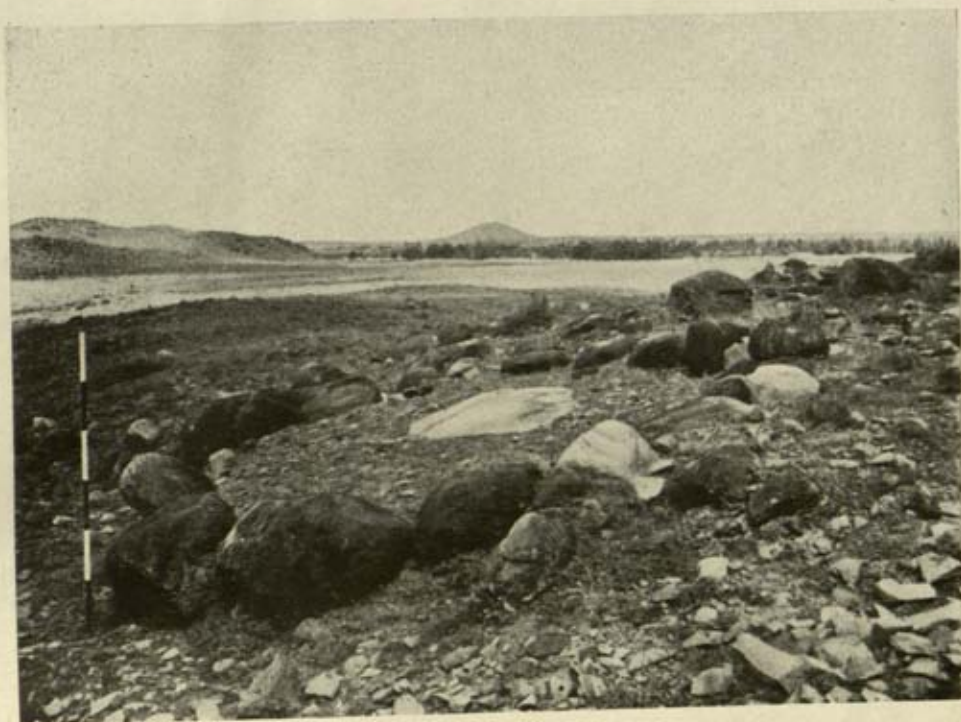
3. Forty-eight beads, forty-one of which were of etched carnelian. These belonged possibly to two strings which were hung from the terracotta hooks provided immediately below the neck of the urn. These beads, together with the two hooks, were collected from the base of the urn after removal of the pots.

Above the pots there was no filling ; the subsequent filling amounting to a few inches only must have percolated through the top. The urn was covered with a lid (fig. 4). The pit was also packed upto the level of the lid.

Overlying the lid was arranged the bulk of pottery, being a group of not less than eighteen pots (pl. IV B). Above these the pit was filled up with gravelly loose earth to the ground-level to form a low mound, over which rested the capstone. There was no occupation on the site prior to the building of the monument.

¹H. C. Beck, 'Notes on sundry Asiatic beads—beads from megalithic tombs and midden in Sultur taluk and neighbouring districts', *Man*, *op. cit.*, p. 172.

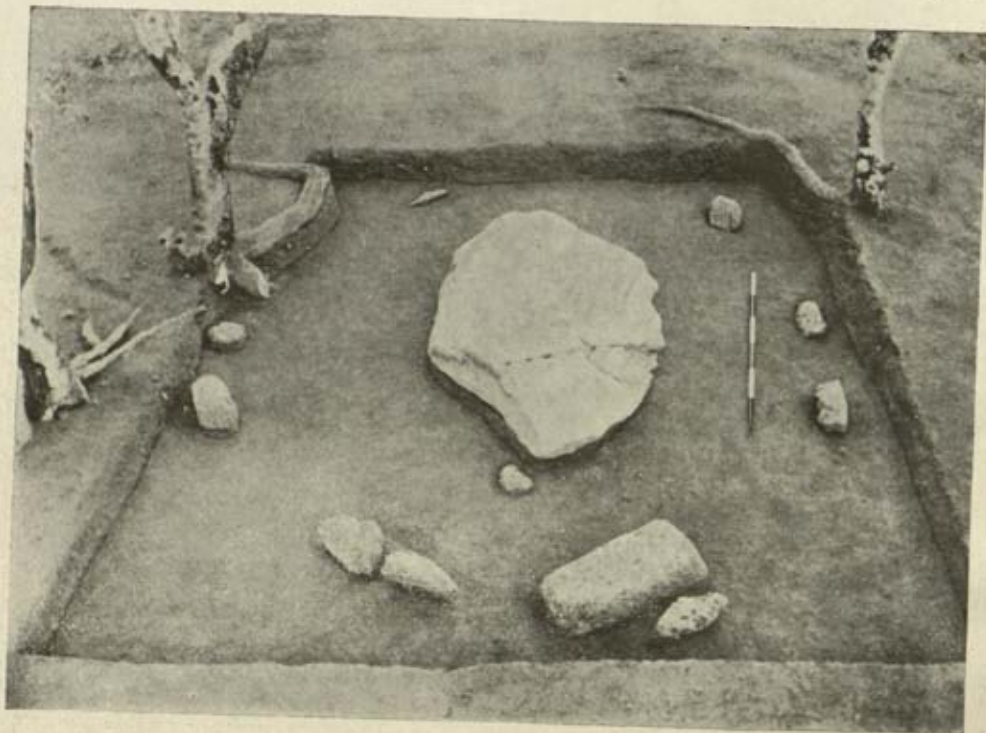
²See also Codrington, *op. cit.*, p. 196.



A. Stone circle, with capstone flush with the ground, at Penmar, Chingleput District (see page 4)



B. Porkalam : close view of the monument showing the low tumulus below the capstone



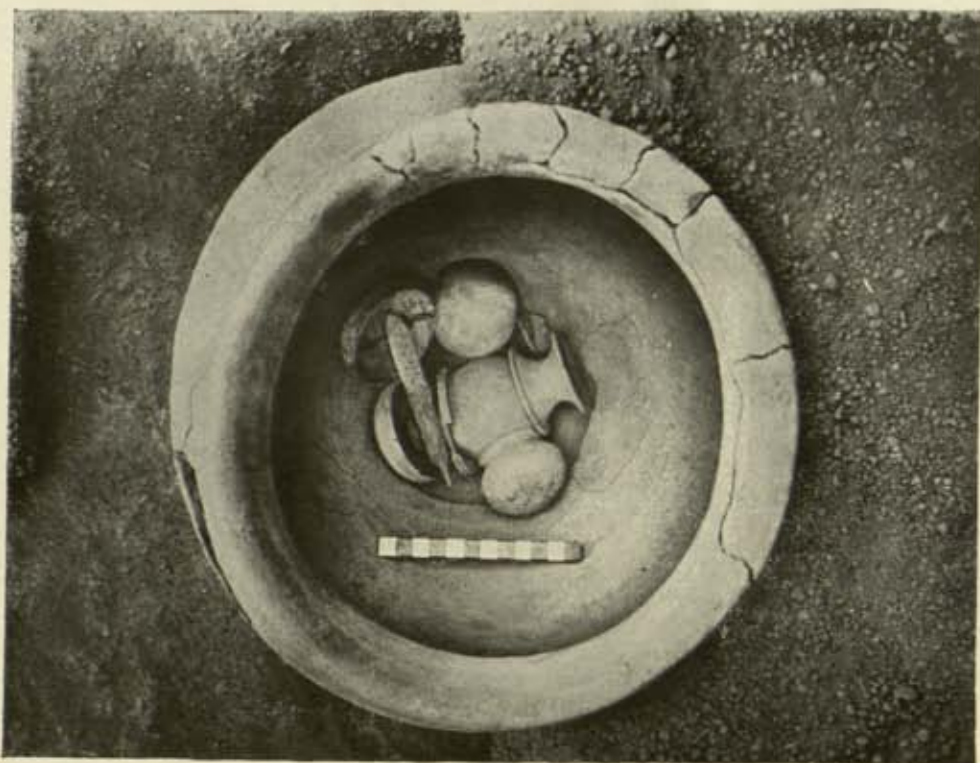
A. View of the monument after clearance



B. View of the monument after removal of the capstone



The pyriform urn in situ (see page 6)



A. Close view of the deposits inside the urn. The hooks provided below the neck of the urn are also to be seen (see page 6)



B. Close view of the pottery-group in the upper deposit of the pit. In the centre can also be seen the lid covering the urn (see page 6)

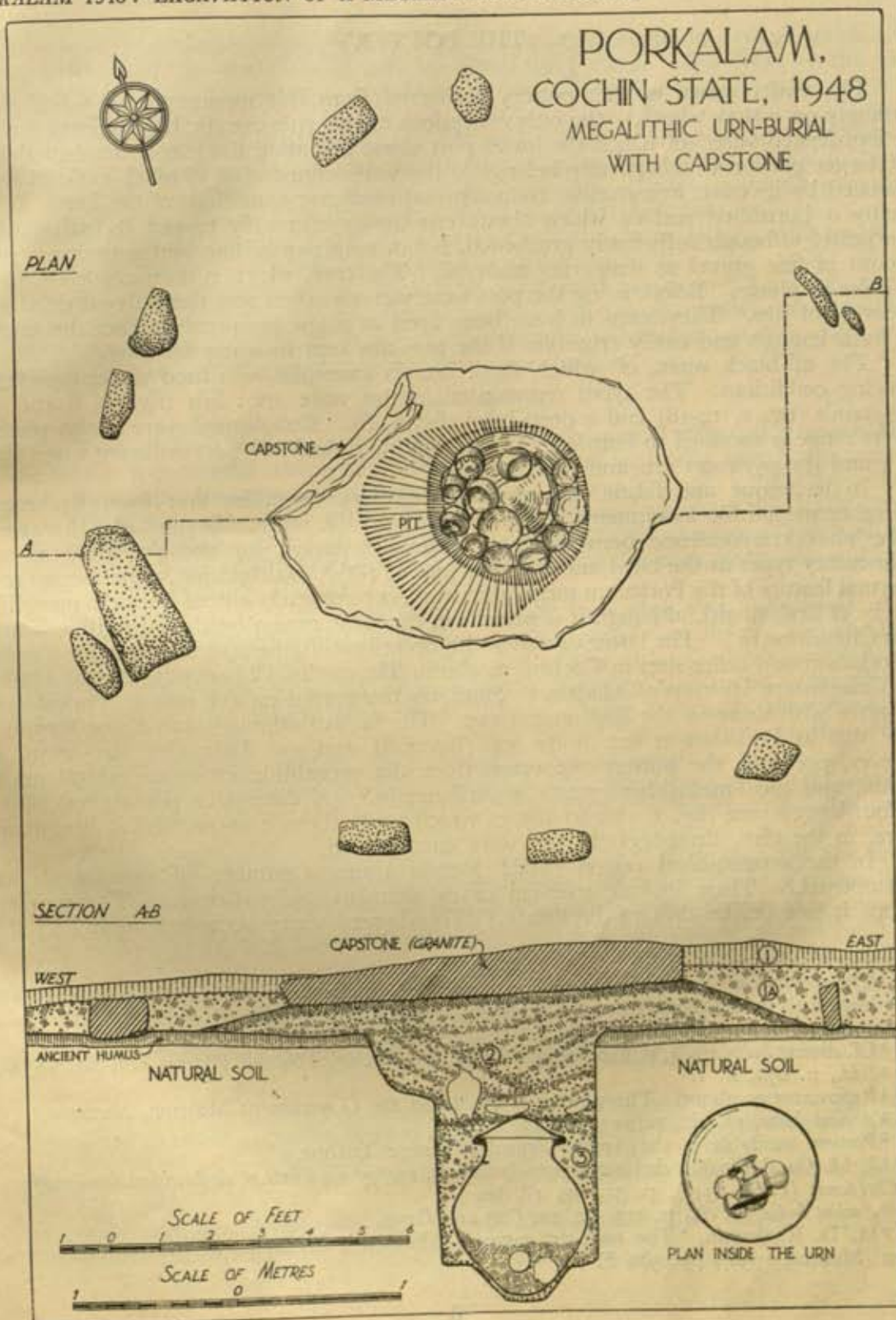


FIG. 1

5. THE POTTERY

The entire range of the pottery recovered from this monument is wheel-made seemingly on a slow wheel;¹ the only exceptions to this rule are the big pyriform urn and the four-legged vases, of which the lower part alone including the legs is hand-modelled. The larger portion of this pottery belongs to the well-defined class of black-and-red ware, produced by inverted firing under reducing and oxidizing conditions of the kiln. It has usually a burnished surface which shows crackles, presumably caused by salt-glazing. The paste, although sufficiently graduated, is not consistently fine and contains a small amount of fine gravel as tempering material. The core, which is normally grey, shows air-holes at places. Before firing the pots were wet-smoothed and thereafter dressed with a coating of slip. They seem to have been fired at a low temperature since the body is not hard enough and easily crumbles if the pots are kept in water for long.

The all-black ware, of which there are six examples, was fired under completely reducing conditions. The types represented in this ware are : lids (fig. 2, 8 and 9) ; ring-stands (fig. 2, 14-16) and a deep bowl (fig. 2, 6). Red-slipped ware is also present, but its range is confined to four-legged vases (fig. 3, 17 and 18) ; an ordinary vase (fig. 2, 13) ; and the pyriform urn and its lid (fig. 4).

In technique and fabric this megalithic pottery resembles that from Brahmagiri and other megalithic monuments in the Deccan and the south. Beyond that there seems to be no correspondence between these industries except for the similarity of such rudimentary types as the bowl and the dish (fig. 2, 1-7).² Salt-glazing, which seems to be a normal feature of the Porkalam megalithic ware, is completely absent from the megalithic pottery of Brahmagiri, although it is present in the same region on the megalithic pottery from Chandravalli.³ The latter two sites also do not yield ring-stands which are common at Porkalam and other sites in Cochin, as also in Tinnevely, Chingleput, Salem, Madurā and Coimbatore Districts of Madras.⁴ Similarly the graffiti on the pots at Porkalam do not agree with those on the Brahmagiri ones. The lid at Brahmagiri has a ring-terminal,⁵ while that at Porkalam is flat at the top (fig. 2, 8 and 9). Lids with ring-terminals, however, occur in the pottery recovered from the megalithic caves at Kattakampal,⁶ Cochin, and the 'megalithic' strata at Arikamedu.⁷ A distinctive pot at Porkalam is the four-legged vase (fig. 3, 17 and 18), of which again there is no parallel at Brahmagiri, where, in the cists, three-legged vases were encountered.⁸

In the geographical region called Kerala quite a number of monuments have been opened.⁹ These include rock-cut caves, dolmens and cist-circles. The recovered pottery is not unlike that of Porkalam. Four-legged vases occur commonly in these

¹ The mechanism termed as slow wheel consists of a flat slab of stone or the base of a broken pot or large dish on which the clay can be slowly revolved with one hand while it can be shaped with the other.

² Cf. *Ancient India*, no. 4, p. 210, fig. 9, C8 ; p. 233, fig. 24, T86 and T87 ; p. 211, fig. 10, C13.

³ *Ibid.*, p. 274, n. 1.

⁴ References as above. The pottery is housed in the Government Museum, Madras.

⁵ *Ancient India*, *op. cit.*, p. 217, fig. 13, P2.

⁶ Pottery available in the Archaeological Museum, Trichur.

⁷ J. M. Casal, *Fouilles de Virampatnam-Arikamedu, rapport de l'Inde et de l'occident aux environs de l'ère Chrétienne* (Paris, 1949), p. 51, fig. 18, 60.

⁸ *Ancient India*, *op. cit.*, p. 213, fig. 12, C25 and C25a.

⁹ M. D. Raghavan, 'The rock-cut caves of Malabar', *Krishnaswami Aiyangar Commemoration Volume* (Madras, 1936), pp. 384 ff.

monuments.¹ Significantly enough some of the megalithic tombs in Coorg² and Cochin have yielded both the three-legged and the four-legged vases. The form of the four-legged vases at Porkalam is roughly paralleled by that of the three-legged ones recovered from Savandurga.³

We have, therefore, different local industries sharing a commonness in pottery-fabric and evidently belonging to the same culture-complex but having no specific resemblance between the pottery-types of each other. Identity of fabric, partially supported by some similarities of form, does, however, suggest some inter-relationship.

The date of this pottery has been tentatively fixed (above, p. 5). There is no other available evidence to justify any revision at the moment.

The following select types are illustrated. Of these, nos. 1 and 2 are represented both in the deposit inside the urn and that overlying; nos. 3, 6, 8, 10 and 14 are peculiar to the deposit inside the urn (pls. IV A and V A) while the remaining, nos. 4, 5, 7, 9, 11-13 and 15-18 occur only in the secondary deposit above the urn.

FIGS. 2-4

1. Bowl of black-and-red ware with a vertical sharpened rim and a round base. Of fine fabric, it is treated with a slip both externally and internally and is salt-glazed.
2. Bowl of black-and-red ware, variant of the above type but with a bluntly carinated profile. Of fine fabric, it is treated with a slip both externally and internally and is salt-glazed.
3. Bowl of black-and-red ware with a vertical internally sharpened rim and sides tapering to a flat base. Of fine fabric, it is treated with a slip both externally and internally and is salt-glazed.
4. Bowl of black-and-red ware with a vertical featureless rim, cylindrical profile and a flat base. It is further distinguished by a weak groove below the rim and also bears post-firing graffiti on the exterior. Of fine fabric, it is treated with a slip both externally and internally and is salt-glazed. It was found resting on a ring-stand and was covered with a lid.
5. Deep bowl of black-and-red ware with a closing internally sharpened rim, low girth and a round base. It bears a pre-firing incised lattice-pattern on the outside. Of fine fabric, it is treated with a slip both externally and internally and is salt-glazed. It was found resting on a ring-stand and had a lid upon it. Analogues exist at Tinnevely.⁴
6. Bowl of polished black ware with an incurved featureless rim, globular profile and an imperfectly flat base. It is characterized by a depression at the rim evidently to receive the lid and post-firing graffiti at four places on the outside. Of fine fabric, it is treated with a slip both externally and internally and is salt-glazed. It was found lying with a lid on the mouth side (no. 8) and a ring-stand on the bottom side (no. 14). Originally, therefore, it must have had a lid over it and rested on a ring-stand (pl. V A). The skeletal remains found below the pot were probably deposited in it. Analogues occur at an urn-burial site at Ilanji, near Kortālum.⁵
7. Dish of black-and-red ware with a vertical internally thickened rim and sides constricted to a sagger base. Of fine fabric, it is treated with a slip both externally and internally and is salt-glazed. Analogues occur at Brahmagiri.⁶

¹ W. Logan, 'Find of ancient pottery in Malabar', *Indian Antiquary*, VIII (1879), pp. 309-11. Pottery available in the Government Museum, Madras, and the Archaeological Museum, Trichur.

² M. J. Walhouse, 'Archaeological Notes', *Indian Antiquary*, IV (1875), p. 13.

³ B. R. Branfill, 'On the Savandurga rude stone cemetery, central Maisur', *Indian Antiquary*, X (1881), pp. 1-12.

⁴ *An. Rep. Arch. Surv. Madras and Coorg*, 1902-03 (Madras, 1903), pl. VI.

⁵ Caldwell, 'Sepulchral urns', *op. cit.*, fig. 1 facing p. 279.

⁶ *Ancient India*, *op. cit.*, p. 211, fig. 10, C13.

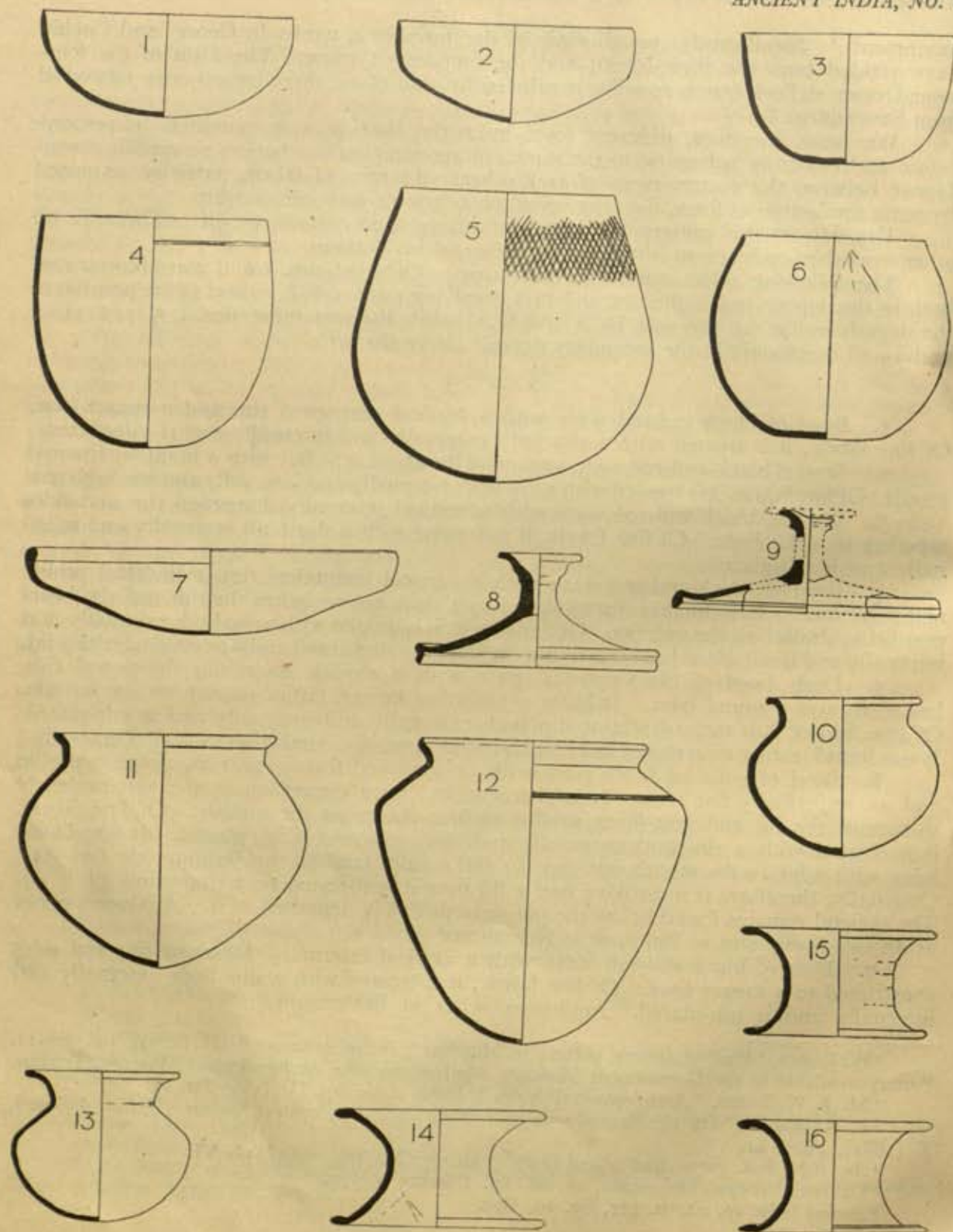


FIG. 2. Pottery-types 1-16. $\frac{1}{4}$

8. Lid of black ware with a short vertical externally grooved rim-base and hollow horizontally splayed-out terminal. Of fine fabric, it is treated with a slip both externally and internally.

9. Lid of black ware with a vertical internally thickened rim-base and a hollow horizontally splayed-out terminal. Of fine fabric, it is treated with a slip both externally and internally.

10. Vase of black-and-red ware with a horizontally splayed-out featureless rim, concave neck, globular profile and a rounded base. Of fine fabric, it is treated with a slip both externally and internally and is salt-glazed.

11. Vase of black-and-red ware with an everted externally thickened rim, short vertical neck, globular profile and a round base. Of fine fabric, it is treated with a slip both externally and internally and is salt-glazed.

12. Vase of black-and-red ware with a short vertical sharpened rim, internally ledged oblique shoulder, bluntly carinated, and a round base. It is characterized by a groove on the shoulder. Of fine fabric, it is treated with a slip both externally and internally and is salt-glazed. It was found resting on a ring-stand.

13. Vase of red ware with a flaring externally thickened rim, concave neck and a round base. Of fine fabric, it is treated with a slip only on the outside. It was found resting upon a four-legged vase (no. 17).

14. Ring-stand of black polished ware. Of fine fabric, it is treated with a slip both externally and internally. Analogues occur abundantly at Ādichchanallūr,¹ Arikamedu² and sites in Coimbatore and Chingleput Districts³ and in Cochin.⁴

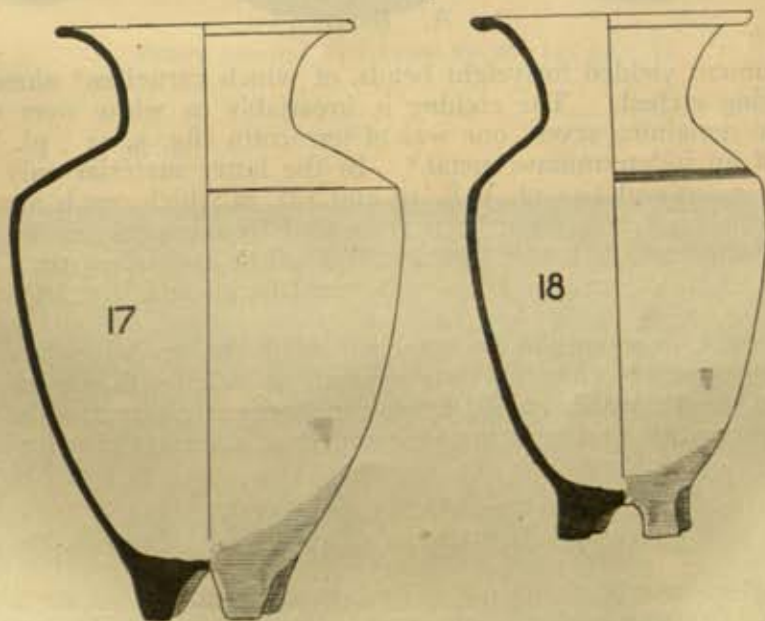


FIG. 3. Pottery-types 17 and 18. $\frac{1}{4}$

¹ Alexander Rea, *An. Rep. Arch. Surv. Madras and Coorg, op. cit.*, pl. VI.

² J. M. Casal, *op. cit.*, p. 52, fig. 19, 62.

³ Pottery in the Government Museum, Madras.

⁴ Pottery in the Archaeological Museum, Trichur.

15. Ring-stand of black polished ware having weakly corrugated sides. Of fine fabric, it is treated with a slip both externally and internally.

16. Ring-stand of black polished ware having a recurved rim-base. Of fine fabric, it is treated with a slip both externally and internally.

17. Vase of red ware with a flaring featureless rim, vertical concave neck, oblique shoulder and a tapering profile. It is distinguished by four solid legs at the bottom which are hand-modelled. Of medium fabric, it is treated with a slip on the outside only.

18. Vase of red ware with a flaring externally oval-collared rim, concave neck, oblique shoulder and a tapering profile. It is distinguished by four solid legs at the bottom which are hand-modelled. Of medium fabric, it is treated with a slip on the outside only.

19. Lid of red ware with an externally elliptical-collared rim-base. Of medium fabric, it has not been treated with any slip or wash. It was found covering jar no. 20.

20. Pyriform jar of dull-red ware with an out-turned externally round-collared rim, convex shoulder and a globular profile tapering to a truncated round base. It is further distinguished by a double row of beaded finger-tip design in appliqué on the shoulder. Immediately below the neck on the inner side were five hooks, two of which had fallen down and were collected along with other contents. These were meant evidently for hanging something, say beads etc. (above, p. 6). A similar provision, referred to by Alexander Rea as 'horns', exists in the burial-urns of Ādichchanallūr.¹

6. OTHER SMALL FINDS

A. BEADS

The monument yielded fortyeight beads, of which carnelian² alone accounted for fortyone, all being etched. The etching is invariably in white over the natural red surface. Of the remaining seven, one was of terracotta (fig. 5, 11 ; pl. V B, 11), while the rest were of an indeterminate metal.³ In the latter material only two shapes are represented (fig. 5, 10 and 12 ; pl. V B, 10 and 12), of which one is a pendant.

Etched carnelian beads have been recovered from megalithic burials at Raigir⁴ in Hyderabad, Sulur in Coimbatore District, Bilikambe⁵ in the Nilgiris, Coorg,⁶ Paravai⁷ in Madurā District, the Shevaroy hills⁸ in Salem District and Wynād⁹ on the Malābār coast.

None, however, was found at Brahmagiri. With the available data on the study of etched carnelian beads, it is difficult to date any type or design with any convincing measure of precision. In the Porkalam etched beads nine designs are met with. Some of these have a fairly wide distribution both in space and time, the most popular being the design

¹ Alexander Rea, *An. Rep. Arch. Surv. Ind., op. cit.*, p. 118.

² These have been erroneously designated as glass in the *An. Rep. Arch. Deptt. Cochin State, op. cit.*, p. 16.

³ The material of these beads has not so far been analysed.

⁴ H. C. Beck, 'Notes on sundry Asiatic beads', *Man, op. cit.*, p. 168.

⁵ Information from Dr. M. G. Dikshit.

⁶ Walhouse, *op. cit.*, pp. 12-13.

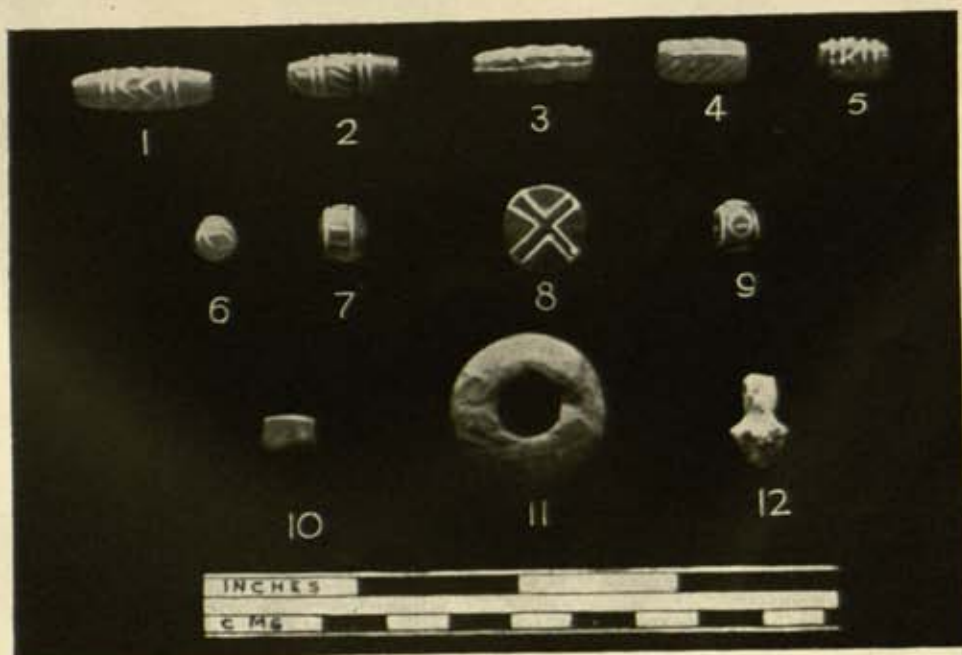
⁷ Rea in *Jour. Asiatic Soc. Beng., op. cit.*, p. 60, pl. X.

⁸ R. Bruce Foote, *The Foote Collection of Indian Prehistoric and Protohistoric Antiquities, Notes on their Ages and Distribution* (Madras, 1916), p. 62 ; *Catalogue Raisonné*, p. 252 ; also Maurice Philips, 'Tumuli in the Salem District', *Indian Antiquary*, II (1873), pp. 224-25.

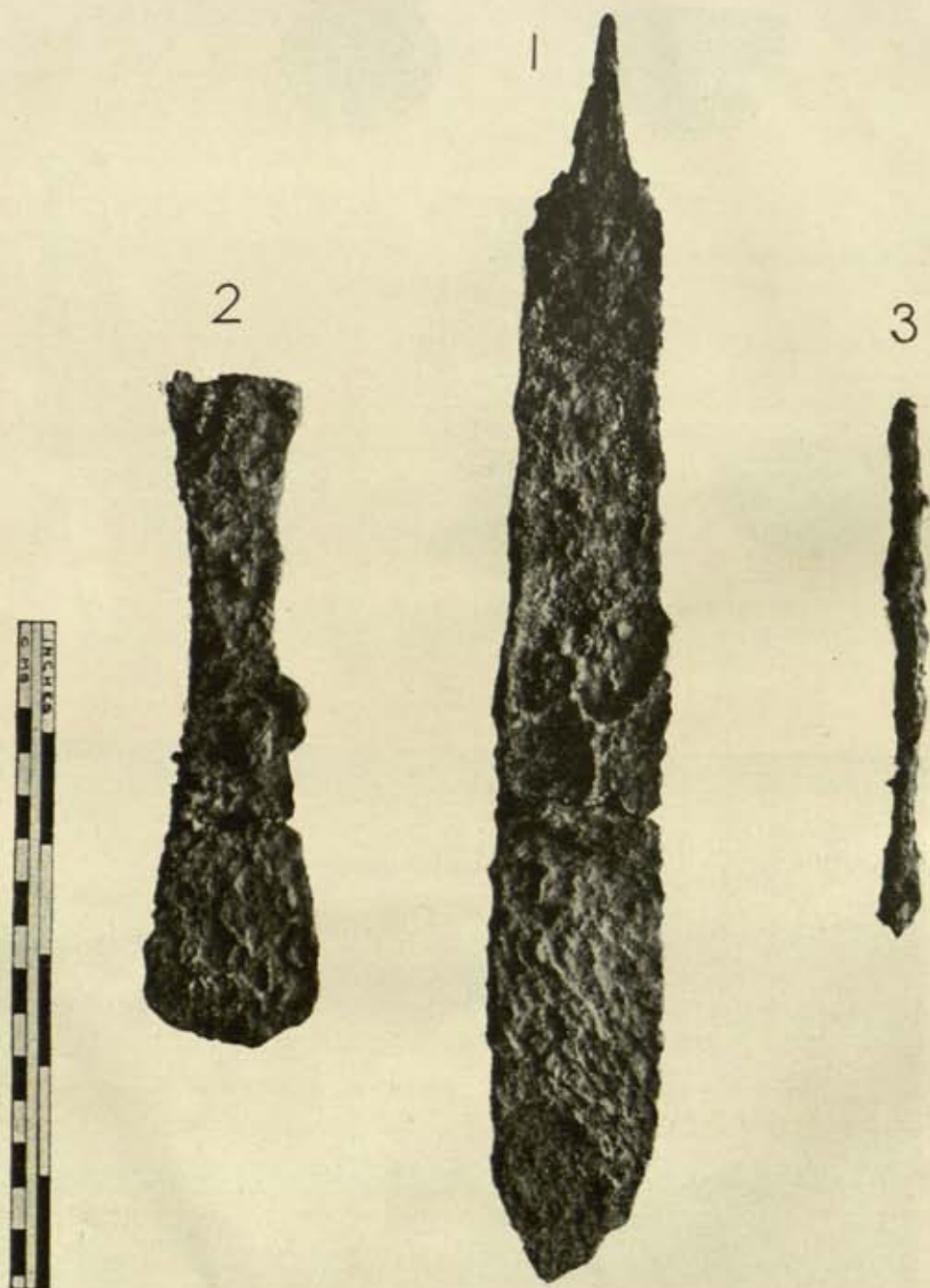
⁹ H. C. Beck, 'Beads from urn burials in the Wynaad, Malabar coast', *Man, op. cit.*, p. 175.



A. Pottery recovered from inside the urn (see page 6)



B. Beads (see page 12)



Iron objects (see page 16)

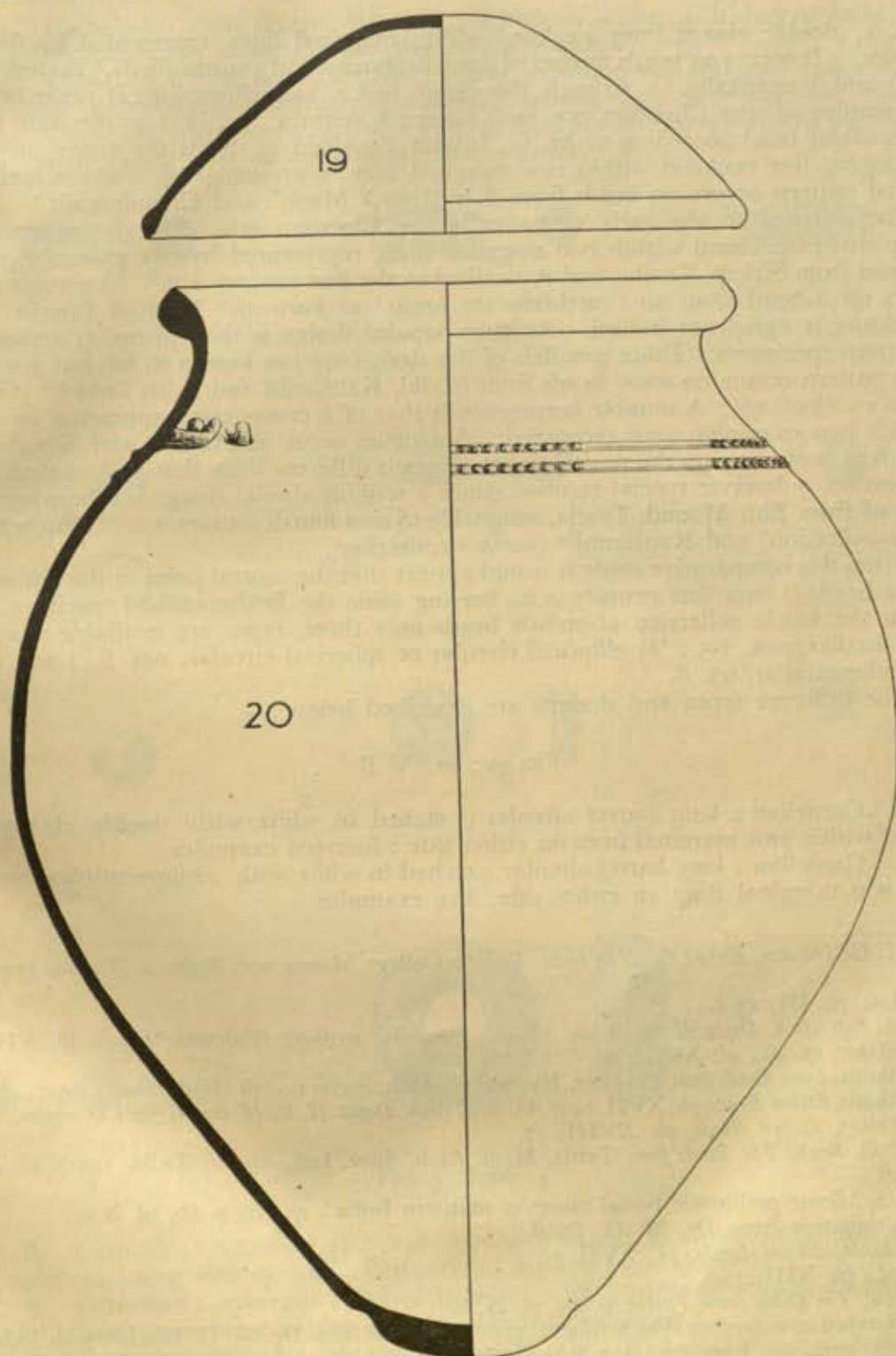


FIG. 4. *Pyriform jar with its lid.* $\frac{1}{8}$

on no. 1, double zigzag lines enclosed within marginal lines, represented by fourteen examples. It occurs on beads recovered from Brāhmanābād (unstratified),¹ Brahmapuri,² Maski³ and Sangankallu.⁴ As such this design had a long chronological range between the beginning of the Christian era and sixteenth century A.D. (being the date of the Brāhmanābād bead according to M. G. Dikshit). Allied to this is the design on no. 5, single zigzag line enclosed within two marginal lines, represented by a single specimen. Identical pattern occurs on beads from Kōṇḍāpur,⁵ Maski⁶ and Chandravalli.⁷ These could be assigned to the early centuries of the Christian era. The design on no. 2, oblique strokes enclosed within two marginal lines, represented by five examples, occurs on a bead from Sirkap, Taxila, and is ascribed to the first century A.D.⁸ A similar design appears on a bead from an 'earthen-ware tomb' at Paravai,⁹ Madurā District. The resemblance is significant indeed. Another popular design is that on no. 7, represented by fourteen specimens. Exact parallels of this design are not known so far, but a roughly similar pattern occurs on some beads from Maski, Kauśāmbī and Sahri Bahlol¹⁰ (Colonel Gordon's collection). A notable occurrence is that of a cross-design appearing on no. 8, of which two examples were recovered. Analogues occur at Maski¹¹ and Kauśāmbī,¹² although at both the sites the position of the cross is different from that at Porkalam. The design on no. 9 deserves special mention, since a roughly similar design has been recorded on a bead from Bhīr Mound, Taxila, assignable to *circa* fourth century B.C.,¹³ Ahichchhatrā (surface-collection) and Kauśāmbī¹⁴ (surface-collection).

From this comparative study it would appear that the central point in the chronology of these beads is *circa* first century A.D., leaving aside the Brāhmanābād specimen.

In the whole collection of etched beads only three types are available : (a) long barrel circular, nos. 1-5 ; (b) elliptical circular or spherical circular, nos. 6, 7 and 9 and (c) circular tabular, no. 8.

The different types and designs are described below :—

FIG. 5 ; PL. V B

1. Carnelian : long barrel circular ; etched in white with double zigzag lines enclosed within two marginal lines on either side ; fourteen examples.

2. Carnelian : long barrel circular ; etched in white with oblique strokes enclosed within two marginal lines on either side ; five examples.

¹ M. G. Dikshit, *Etched Beads in India*, Deccan College Monograph Series 4 (Poona, 1949), pl. X, 22.

² *Ibid.*, pl. III, 15.

³ *An. Rep. Arch. Deptt. H. E. H. the Nizam's Dominion*, 1936-37 (Calcutta, 1939), pl. XII A.

⁴ Dikshit, *op. cit.*, pl. XVIII, 6.

⁵ Dikshit, *Some Beads from Kondapur*, Hyderabad Arch. Series no. 16 (Hyderabad, 1952), pl. I, 2.

⁶ Dikshit, *Etched Beads*, pl. XVII, 19 ; *An. Rep. Arch. Deptt. H. E. H. the Nizam's Dominion*, *op. cit.*

⁷ Dikshit, *Etched Beads*, pl. XVIII, 17.

⁸ H. C. Beck, *The Beads from Taxila*, Mem. Arch. Surv. Ind., no. 65 (Delhi, 1941), pl. II, 25 and p. 46.

⁹ Rea, 'Some prehistoric burial places in southern India', *op. cit.*, p. 60, pl. X a.

¹⁰ Information from Dr. M. G. Dikshit.

¹¹ Dikshit, *Etched Beads*, pl. XVII, 9.

¹² *Ibid.*, pl. XIII, 15.

¹³ Beck, *The Beads from Taxila*, p. 45, pl. II, 8.

¹⁴ Information regarding Ahichchhatrā and Kauśāmbī from Dr. M. G. Dikshit, who feels that 'the present specimen from Porkalam is the only bead with this pattern from south India'.

3. Carnelian : long barrel circular ; etched in white with longitudinal zigzag lines in four quadrants along the periphery ; one example.
4. Carnelian : long barrel circular ; etched in white with oblique strokes enclosed within four longitudinal quadrants resembling herring-bone pattern ; one example.
5. Carnelian : long barrel circular ; etched in white with single zigzag line enclosed within two marginal lines on either side ; one example.

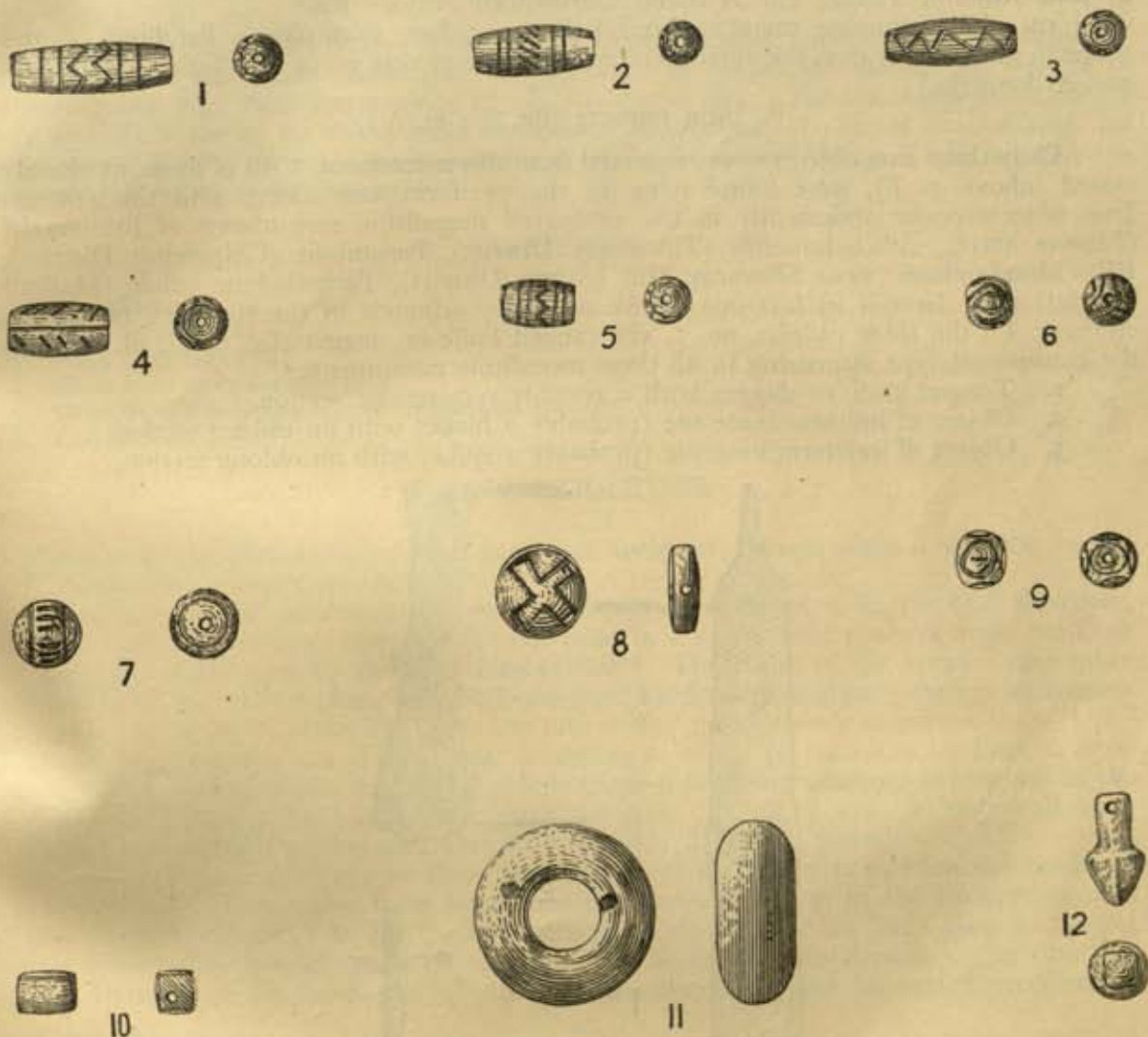


FIG. 5. Beads. 1

6. Carnelian : standard elliptical circular ; etched in white with three circles on the body enclosing oval circles in imitation of the eye ; one example.
7. Carnelian : spherical ; etched in white with horizontal strokes enclosed within marginal lines, resembling ladder pattern ; fourteen examples.
8. Carnelian : circular tabular ; etched in white with a cross ; two examples.

9. Carnelian : standard elliptical circular ; etched in white with circles all over the body enclosing a dash ; two examples. Roughly similar design occurs on a bead recovered from Bhīr Mound, Taxila, ascribable to the fourth century B.C.¹

10. Indeterminate metal : standard barrel square ; the perforation is not in the centre as seen in the transverse section ; two examples.

11. Terracotta : circular annular oblate ; one example. Analogue in bone occurs at Bhīr Mound, Taxila, and is dated fourth-third century B.C.²

12. Indeterminate metal ; plumb-bob type ; four examples. Pendants of this shape in metal are scarce, but their counterparts in terracotta occur at Rājghāt, Kauśāmbī and Arikamedu.³

B. IRON OBJECTS (fig. 6 ; pl. VI)

Only three iron objects were recovered from this monument. All of these, as already stated (above, p. 6), were found lying in the pyriform urn along with the pottery. Iron objects occur abundantly in the excavated megalithic monuments of Brahmagiri (Mysore State), Ādichchanallūr (Tinnevely District), Perumbair (Chingleput District), Kil. Mondambadi near Shevaroy Hill (Salem District), Periyakulam taluk (Madurā District) etc. Iron is in fact one of the necessary adjuncts of the southern megalithic culture. Of the three objects, no. 1, viz. tanged knife or dagger (fig. 6, 1 ; pl. 6, 1), is the commonest type appearing in all these megalithic monuments.⁴

1. Tanged knife or dagger with a roughly rectangular section.
2. Object of indeterminate use (probably a blade) with an oblong section.
3. Object of indeterminate use (probably a spike) with an oblong section.

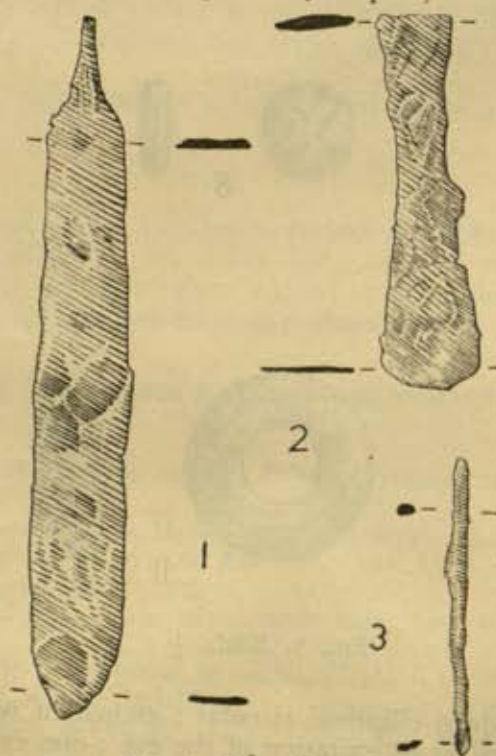


FIG. 6. Iron objects. 1

¹ See above, p. 14, n. 13

² Beck, *The Beads from Taxila*, p. 61, pl. X, 18.

³ Information from Dr. M. G. Dikshit.

⁴ *Ancient India*, *op. cit.*, pp. 254-57, figs. 36 and 37.